

In the Claims:

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- 2 A) Claims 1—13, 15—17 and 19—25 remain in their original form.
- 3 B) Claim 14 is currently amended.
- 4 C) Claims 18 and 26 are currently cancelled.
- 5 D) Claims 27—31 are new.
- 6

7 1. (Original) A transaction processing system comprising:

8 a database writer configured to process data in accordance with one or more

9 transactions within the transaction processing system;

10 a transaction monitor for monitoring transactions within the transaction

11 processing system;

12 a log writer for maintaining audit trail data associated with transactions

13 within the transaction processing system; and

14 one or more non-disk persistent memory units associated with the log

15 writer and configured to receive, from the log writer, audit trail data.

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17 2. (Original) The transaction processing system of claim 1, wherein

18 the log writer comprises a primary audit disk process and a backup audit disk

19 process.

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21 3. (Original) The transaction processing system of claim 1, wherein

22 said one or more non-disk persistent memory units comprises a primary non-disk

23 persistent memory unit and a mirror non-disk persistent memory unit.

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1 4. (Original) The transaction processing system of claim 1, wherein
2 said one or more non-disk persistent memory units comprises a primary non-disk
3 persistent memory unit and a mirror non-disk persistent memory unit, and wherein
4 the log writer is configured to first write audit trail data to the primary non-disk
5 persistent memory unit and then write the audit trail data to the mirror non-disk
6 persistent memory unit.

7
8 5. (Original) The transaction processing system of claim 1, wherein
9 the one or more non-disk persistent memory units comprise a write aside buffer
10 configured to receive the audit trail data, the write aside buffer being configured as
11 a circular buffer.

12
13 6. (Original) A transaction processing system comprising:
14 a database writer configured to process data in accordance with one or more
15 transactions within the transaction processing system;
16 a transaction monitor for monitoring transactions within the transaction
17 processing system;
18 a log writer for maintaining audit trail data associated with transactions
19 within the transaction processing system;
20 one or more non-disk persistent memory units associated with the log
21 writer and configured to receive, from the log writer, audit trail data; and
22 one or more audit log disks configured to receive audit trail data that is first
23 received by the one or more non-disk persistent memory units.
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1 7. (Original) The system of claim 6, wherein the log writer is
2 configured to cause the audit trail data in the one or more non-disk persistent
3 memory units to be written to the one or more audit log disks when a non-disk
4 persistent memory unit threshold is reached or exceeded.

5
6 8. (Original) The system of claim 6, wherein the transaction
7 processing system is configured to commit transactions before associated audit
8 trail data is written to the one or more audit log disks.

9
10 9. (Original) The system of claim 6, wherein the transaction
11 processing system is configured to commit transactions after associated audit trail
12 data is received by the one or more non-disk persistent memory units and before
13 the associated audit trail data is written to the one or more audit log disks.

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15 10. (Original) The system of claim 6, wherein the log writer
16 comprises a primary audit disk process and a backup audit disk process.

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18 11. (Original) The system of claim 6, wherein said one or more non-
19 disk persistent memory units comprises a primary non-disk persistent memory unit
20 and a mirror non-disk persistent memory unit.

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22 12. (Original) The system of claim 6, wherein said one or more non-
23 disk persistent memory units comprises a primary non-disk persistent memory unit
24 and a mirror non-disk persistent memory unit, and wherein the log writer is
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1 configured to first write audit trail data to the primary non-disk persistent memory
2 unit and then write the audit trail data to the mirror non-disk persistent memory
3 unit.

4 13. (Original) The system of claim 6, wherein the one or more non-
5 disk persistent memory units comprise a write aside buffer configured to receive
6 the audit trail data, the write aside buffer being configured as a circular buffer.

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8 14. (Currently Amended) A method comprising:
9 receiving data associated with transaction-induced state changes, wherein
10 the act of receiving is performed by a log writer comprising primary and backup
11 audit disk processes; and

12 writing the received data to non-disk persistent memory sufficient to
13 commit an associated transaction.

14
15 15. (Original) The method of claim 14, wherein the act of writing
16 comprises writing the received data to first and second non-disk persistent
17 memory units, the first non-disk persistent memory unit comprising a primary
18 non-disk persistent memory unit, the second non-disk persistent memory unit
19 comprising a mirror non-disk persistent memory unit.

20
21 16. (Original) The method of claim 14, wherein the act of writing
22 comprises writing the received data to first and second non-disk persistent
23 memory units, the first non-disk persistent memory unit comprising a primary
24 non-disk persistent memory unit, the second non-disk persistent memory unit
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1 comprising a mirror non-disk persistent memory unit, the act of writing
2 comprising first writing the received data to the primary non-disk persistent
3 memory unit and then writing the received data to the mirror non-disk persistent
4 memory unit.

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6 17. (Original) The method of claim 14, wherein the act of writing
7 comprises writing the received data to first and second non-disk persistent
8 memory units, the first non-disk persistent memory unit comprising a primary
9 non-disk persistent memory unit, the second non-disk persistent memory unit
10 comprising a mirror non-disk persistent memory unit, the act of writing
11 comprising concurrently writing the received data to the primary non-disk
12 persistent memory unit and the mirror non-disk persistent memory unit.

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14 18. (Cancel)

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16 19. (Original) The method of claim 14 further comprising after
17 writing the received data to the non-disk persistent memory, writing the
18 transaction-induced state change data to one or more audit log disks.

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20 20. (Original) The method of claim 14 further comprising after
21 writing the received data to the non-disk persistent memory, writing the
22 transaction-induced state change data to one or more audit log disks, wherein the
23 act of writing the transaction-induced state change data to the one or more audit
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1 log disks comprises doing so responsive to a threshold associated with the non-
2 disk persistent memory being reached or exceeded.

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4 21. (Original) A method comprising:
5 maintaining at least two write aside buffers in non-disk persistent memory,
6 a first of the buffers comprising a primary buffer, a second of the buffers
7 comprising a mirror buffer;
8 synchronously flushing audit data associated with one or more transactions
9 to said at least two write aside buffers; and
10 when a predetermined condition is met, writing the audit data in the write
11 aside buffers to one or more audit log disks.

12
13 22. (Original) The method of claim 21, wherein the act of
14 maintaining comprises maintaining said buffers as circular buffers.

15
16 23. (Original) The method of claim 21, wherein the predetermined
17 condition comprises a threshold condition.

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19 24. (Original) The method of claim 21, wherein said act of
20 synchronously flushing is sufficient to commit an associated transaction.

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22 25. (Original) The method of claim 21, wherein said acts are
23 performed by a transaction processing system that comprises a database writer
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1 component, a transaction monitor component and a log writer component, each
2 component being implemented as a primary-backup process pair.

3
4 26. (Cancel)

5 27. (New) A method comprising:
6 receiving data associated with transaction-induced state changes; and
7 writing the received data to non-disk persistent memory sufficient to
8 commit an associated transaction, wherein the act of writing comprises writing the
9 received data to first and second non-disk persistent memory units, the first non-
10 disk persistent memory unit comprising a primary non-disk persistent memory
11 unit, the second non-disk persistent memory unit comprising a mirror non-disk
12 persistent memory unit.

13
14 28. (New) A method comprising:
15 receiving data associated with transaction-induced state changes; and
16 writing the received data to non-disk persistent memory sufficient to
17 commit an associated transaction, wherein the act of writing comprises writing the
18 received data to first and second non-disk persistent memory units, the first non-
19 disk persistent memory unit comprising a primary non-disk persistent memory
20 unit, the second non-disk persistent memory unit comprising a mirror non-disk
21 persistent memory unit, the act of writing comprising first writing the received
22 data to the primary non-disk persistent memory unit and then writing the received
23 data to the mirror non-disk persistent memory unit.

1 29. (New) A method comprising:
2 receiving data associated with transaction-induced state changes; and
3 writing the received data to non-disk persistent memory sufficient to
4 commit an associated transaction, wherein the act of writing comprises writing the
5 received data to first and second non-disk persistent memory units, the first non-
6 disk persistent memory unit comprising a primary non-disk persistent memory
7 unit, the second non-disk persistent memory unit comprising a mirror non-disk
8 persistent memory unit, the act of writing comprising concurrently writing the
9 received data to the primary non-disk persistent memory unit and the mirror non-
10 disk persistent memory unit.

11
12 30. (New) A method comprising:
13 receiving data associated with transaction-induced state changes;
14 writing the received data to non-disk persistent memory sufficient to
15 commit an associated transaction; and
16 after writing the received data to the non-disk persistent memory, writing
17 the transaction-induced state change data to one or more audit log disks.

1 31. (New) A method comprising:
2 receiving data associated with transaction-induced state changes;
3 writing the received data to non-disk persistent memory sufficient to
4 commit an associated transaction; and
5 after writing the received data to the non-disk persistent memory, writing
6 the transaction-induced state change data to one or more audit log disks, wherein
7 the act of writing the transaction-induced state change data to the one or more
8 audit log disks comprises doing so responsive to a threshold associated with the
9 non-disk persistent memory being reached or exceeded.